R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

Applicants thank Examiner Natnael for the indication of allowable matter in claims 22 and 24.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments and the new claims can be found in the specification, for example, on page 6 lines 7-12, page 14 line 17 - page 15 line 3, page 16 lines 3-8 in FIGS. 1 and 4, as originally filed. Thus, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 11, 13, 14, 16, 18, 19 and 23 under 35 U.S.C. §102(e) as being anticipated by Yi `387 is respectfully traversed and should be withdrawn.

Yi concerns a method and system for turbo-coded satellite digital audio broadcasting (Title).

Claim 11 provides a converter configured to convert a symbol stream comprising a plurality of symbols into an encoded stream. Page 3 of the Office Action asserts that an A/D converter 158 of Yi is similar to the claimed converter. However, no evidence has been provided that the A/D converter 158 of Yi operates on a symbol stream comprising a plurality of symbols.

Therefore, *prima facie* anticipation has not been established. Furthermore, Yi appears to be silent that the A/D converter 158 converts a symbol stream comprising a plurality of symbols into an encoded stream as presently claimed. As such, the Examiner is respectfully requested to either (i) clearly and concisely explain why the A/D converter 158 of Yi expressly or inherently receives a stream of symbols from a down converter 156 or (ii) withdraw the rejection.

Claim 11 further provides (i) a turbo decoder configured to produce a data stream and (ii) a synchronization remover configured to remove a synchronization signal from the data stream. Despite the assertion on page 3 of the Office Action, a synch circuit 168 of Yi does not appear to operate on a stream produced by a turbo decoder 172 of Yi. Therefore, the Office Action has failed to establish that Yi discloses the elements **as arranged in the claims.** Claim 16 provides language similar to claim 11. As such, claims 11 and 16 are fully patentable over the cited reference and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-4, 6-9 and 21 under 35 U.S.C. §103(a) as being unpatentable over Fimoff et al. '558 (hereafter Fimoff) in view of Langhammer et al. '290 (hereafter Langhammer) is respectfully traversed and should be withdrawn.

The rejection of claims 12 and 17 under 35 U.S.C. §103(a) as being unpatentable over Yi in view of Fimoff is respectfully traversed and should be withdrawn.

Fimoff concerns coding and decoding a signal modified in accordance with the feedback states of an encoder (Title). Langhammer concerns a normalization implementation for a logmap decoder (Title). Yi concerns a method and system for turbo-coded satellite digital audio broadcasting (Title).

Claim 1 provides a formatter configured to format a plurality of data frames received in a transport stream by inserting a plurality of synchronization data into said data frames to produce a block stream. Despite the assertion on page 5 of the Office Action, a Data Source 110 of Fimoff does not appear to receive a transport stream from which to produce a block stream. In particular, FIG. 15b of Fimoff does not show any signal received by the data source 110. Therefore, the data source 110 of Fimoff does not appear to teach or suggest a formatter configured receive a transport stream as presently claimed.

Furthermore, despite the assertion on page 5 of the Office Action, Fimoff appears to be silent regarding the data source 110 inserting synchronization data into data frames in the transport stream. Instead, column 7, line 64 thru column 8, line 4 of Fimoff appear to suggest that a frame formatter 38 creates "data frames". No evidence has been provided in the Office Action

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that the DS symbols of Fimoff are inserted into a stream by the data source 110. Therefore, Fimoff and Langhammer, alone or in combination, do not appear to teach or suggest a formatter configured to format a plurality of data frames received in a transport stream by inserting a plurality of synchronization data into said data frames to produce a block stream as presently claimed.

Claim 1 further provides an inserter configured to insert a synchronization signal into a data stream. Despite the assertion on page 5 of the office Action, a mapper 122 of Fimoff does not appear to be operational to insert a synchronization signal into a data stream as presently claimed. Therefore, Fimoff and Langhammer, alone or in combination, do not appear to teach or suggest an inserter configured to insert a synchronization signal into a data stream as presently claimed.

Claim 1 further provides a turbo encoder configured to encode the data stream provided by the inserter. Assuming, *arguendo*, that it would have been obvious to replace a TCM Encoder of Fimoff with a turbo encoder 60 of Langhammer (for which Applicants' representative does not necessarily agree), the proposed change would eliminate the mapper 122 of Fimoff upon replacing the TCM Encoder. Therefore, the proposed combination does not appear to teach or suggest every claimed element.

Assuming, *arguendo*, that the proposed change would only replace the 9 Way Convolution Encoder 120 of Fimoff with the turbo encoder 60 of Langhammer, the proposed change does not have the turbo encoder 60 operating on the data stream generated by the mapper 122. Therefore, the proposed combination does not appear to teach or suggest every claimed limitation.

Furthermore, the Office Action has failed to establish clear and particular evidence of motivation to combine the references. In particular, no evidence of motivation was provided in the Office Action. The fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness (MPEP §2143.01). Therefore, *prima facie* obviousness has not been established.

Furthermore, the Office Action has failed to establish that both Fimoff and Langhammer are analogous art relative to the Applicants' invention. In particular, Fimoff has a primary U.S. classification of 375/262. Langhammer has a primary U.S. classification of 341/94. However, no evidence has been provided in the Office Action that both Fimoff and Langhammer are either (i) within the Applicants' field of endeavor or (ii) reasonably pertinent to the particular problem with which the Applicants' were concerned (MPEP §2141.01(a)). Due to a lack of evidence to the contrary, the differences in the U.S. Patent and Trademark Office classifications appear to show that at least one of the references

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is non-analogous art and thus the proposed combination is not obvious. Claim 6 provides language similar to claim 1. As such, claims 1 and 6 are fully patentable over the cited references and the rejection should be withdrawn.

Claim 21 provides a bit-to-symbol mapper configured to map an encoded stream to produce a symbol stream carrying a plurality of symbols each consisting of two error protected bits and one redundant bit. Despite the assertion on page 7 of the Office Action, the mapper 122 of Fimoff does not appear to produce a stream carrying a plurality of symbols each consisting of two error protected bits and one redundant bit as presently claimed. In particular, column 16, lines 52-56 of Fimoff states that the mapper 122 converts 3-bit symbols into "one of M amplitude or phase levels (where M=8 in this case)." Therefore, Fimoff and Langhammer, alone or in combination, do not appear to teach or suggest a bit-to-symbol mapper configured to map an encoded stream to produce a symbol stream carrying a plurality of symbols each consisting of two error protected bits and one redundant bit as presently claimed.

Claim 21 further provides (thru dependency from claim 1) an inserter. However, the Office Action has simultaneously cited the mapper 122 of Fimoff as both the claimed inserter and the claimed bit-to-symbol mapper. Therefore, the Office Action has failed to establish that Fimoff and Langhammer, alone or in

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combination, teach or suggest both and inserter **and** a bit-to-symbol mapper as presently claimed. Claim 23 provides language similar to claim 21. As such, claims 21 and 23 are fully patentable over the cited references and the rejection should be withdrawn.

Regarding claims 12 and 17, page 8 of the Office Action alleges motivation to combine Yi and Fimoff exists "to maximize the usage of the bandwidth of the given television signal." However, the alleged motivation is not credited to either reference or knowledge generally available to one of ordinary skill in the art as required by MPEP 2142. Therefore, the Examiner is respectfully requested to either (i) identify the source of the alleged motivation, and if knowledge generally available, provide evidence or (ii) withdraw the rejection.
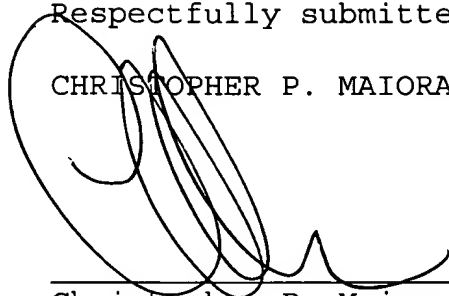
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit Account No. 12-2252.

Respectfully submitted,

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